

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus, and

wherein said rotor is supported by at least one of said fluid transmitting apparatus, an output shaft of said engine and said case.

21. The drive apparatus for a hybrid vehicle according to claim 20, wherein said rotor is supported by the output shaft of said engine and an input member of said fluid transmitting apparatus.

22. The drive apparatus for a hybrid vehicle according to claim 21, wherein said rotor includes a hub at a center of rotation thereof, said hub having a shaft portion contacting an output shaft of said engine only in an axially narrow area, thereby being supported by said output shaft for free axial movement relative to said output shaft.

23. The drive apparatus for a hybrid vehicle according to claim 22:

wherein a recess is formed in an end surface of said output shaft of said engine, an annular protrusion forming the axially narrow area on an outer peripheral surface of the shaft portion of said hub, and

wherein said shaft portion of said hub is inserted into said recess and said annular protrusion portion is in contact with said output shaft, whereby said rotor is supported by said output shaft.

24. The drive apparatus for a hybrid vehicle according to claim 23:

wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, said front cover including a center portion, a middle portion extending radially outward from said center portion and an outer portion connected to said center portion, and

wherein said rotor is supported at the center portion and at the middle portion of said front cover.

25. The drive apparatus for a hybrid vehicle according to claim 24, wherein said front cover has an axial extension at said center portion, and wherein said hub of said rotor is mounted on said axial extension, thereby centering said rotor.

26. The drive apparatus for a hybrid vehicle according to claim 25:

wherein a flex plate for transmitting a driving force is provided between the output shaft of said engine and said rotor,

wherein said flex plate extends radially outward of said stator; and further comprising:

a sensor, for detecting a phase of the rotor, arranged facing an outer peripheral portion of said flex plate.

27. The drive apparatus for a hybrid vehicle according to claim 26:

wherein an end portion of an output shaft of said engine is rotatably supported by a bearing; and

wherein at least a portion of said annular protrusion axially overlaps said bearing.

28. The drive apparatus for a hybrid vehicle according to claim 20, wherein said rotor is fixed to and supported by the input member of said fluid transmitting apparatus.

29. The drive apparatus for a hybrid vehicle according to claim 28, wherein said engine output shaft and the input member of said fluid transmitting apparatus are connected and supported so as to freely move axially relative to each other.

30. The drive apparatus for a hybrid vehicle according to claim 20, wherein said rotor is fixed to and supported by the output shaft of said engine.

31. The drive apparatus for a hybrid vehicle according to claim 30, wherein said engine output shaft and the input member of said fluid transmitting apparatus are connected and supported so as to freely move axially relative to each other.

32. The drive apparatus for a hybrid vehicle according to claim 20, wherein said rotor is supported by said case and the input member of said fluid transmitting apparatus.

33. The drive apparatus for a hybrid vehicle according to claim 32, wherein said rotor and the input member of said fluid transmitting apparatus are integrally fixed so as to be rotatably

supported by said case and connected to the output shaft of said engine so as to freely move axially relative to the output shaft.

34. The drive apparatus for a hybrid vehicle according to claim 20, wherein said rotor is supported by said case and the output shaft of said engine.

35. The drive apparatus for a hybrid vehicle according to claim 34, wherein said rotor and the output shaft of said engine are integrally fixed so as to be rotatably supported by said case and connected to the input member of said fluid transmitting apparatus so as to freely move axially relative to said input member.

36. The drive apparatus for a hybrid vehicle according to claim 20, wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, and


said front cover includes a radially extending inner portion and an axially extending middle portion and said rotor is arranged on an outer side of and parallel to said middle portion with said predetermined gap therebetween.

37. The drive apparatus for a hybrid vehicle according to claim 36, wherein said fluid transmission apparatus includes a multi-disc lockup clutch for connecting said input member to said turbine, and

said lockup clutch is arranged radially inward of said middle portion of said front cover.

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Respectfully submitted,

  
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Dated: August 28, 2001

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